

LWM-1 Line Heat Detectors

- **Combined fixed temperature and rate-of rise evaluation**
- **Resistant against mechanical and chemical impact, corrosion, humidity and dust**
- **High false alarm immunity even in unfavourable ambient conditions**
- **Maximum sensor length of 300m, even for ambient temperature of up to 50°C**
- **Early fire detection with heat detector classes A1, A2 B or C**
- **Suitable for application in hazardous areas**
- **Space-saving sensor cable**
- **High chemical and / or mechanical resilience by using special sensor cables**
- **Constant sensitivity along the cable length**



Application areas

The LWM-1 system is particularly suitable for use in confined spaces or rough ambient conditions. It consists of two components: the sensor cable and the LWM-1 evaluation unit.

The LWM-1 monitors the sensor cable resistance. The fixed alarm temperature (MAX-ALARM) is adjusted via a calibration switch (15 levels), while the rate-of-rise alarm (DIFF-ALARM) is configured via two calibration switches (16 levels): rate-of-rise alarm and rate-of-rise time.

This results in various configuration options, which allows alarm actuation in evaluation units to be tailored to the specific application requirements. Four LEDs (operation, MAX-ALARM, DIFF-ALARM, fault) display the current state of the LWM-1 evaluation unit.

Alarms and faults are stored in the evaluation unit. Two test buttons enable the system to be electrically tested (alarm and fault test as well as LED test).

The LWM-1 evaluation unit is connected to the fire alarm panel via an es-serbus transponder and the reset module. With the reset module, the unit can be directly reset via the fire alarm panel. In addition, the evaluation unit can be reset by disconnection of the voltage supply or by activation of the internal reset button.

Of major importance is the LWM-1 suitability for applications, where conventional detection via automatic detectors would cause additional expenses or where it is simply impossible.

Typical application types:

- Multi-storey car parks
- Recycling plants
- High voltage plants
- Cold storage facilities
- Conveying belt systems
- Escalators
- Tunnels

Various sensor cable types

Three different sensor cable types are available. The blue cable can be used in normal ambient conditions (even for high humidity levels). The black nylon-coated sensor cable is additionally protected against acids and bases. The third sensor cable is also provided with nylon coating and with additional stainless steel braiding to reduce mechanical load.

Technical data Evaluation unit

Rated voltage range:	10 to 30 V DC
Quiescent current consumption:	max. 25 mA (at 24 V)
Current consumption for DIFF-ALARM / MAX-ALARM:	max. 25 mA (at 24 V)
Current consumption during failure:	max. 15 mA (at 24 V)
Starting current:	< 100 mA (at 24 V)
Display:	LED green: in operation, permanent light
	LED red: DIFF-ALARM, permanent light, locked
	LED red: MAX-ALARM, permanent light, locked
	LED yellow: fault, flash light, locked
Sensor length per evaluation unit:	max. 300 m, min. 10 m
Temperature range:	-20 °C to +50 °C
Type of protection:	IP 65
Material:	ABS
Colour:	grey, similar to RAL 7035
Weight:	approx. 550 g
Dimensions (W x H x D):	200 x 120 x 80 mm
VdS approval:	G 205066, based on EN 54-5; 2000 Standard

Technical data	sensor cable blue	sensor cable black	stainless steel sensor cable
Part number:	761245	761246	761247
Outer diameter:	3.15 mm	4.8 mm	5.8 mm
Weight (200 m):	3.2 kg	4.7 kg	9.7 kg
Pull strength (N):	100	100 +	1000
Conduit diameter:		0.46 mm	
Isolation thickness:		0.34 mm	
Outer coat thickness:		0.25 mm	
Temperature resistance:		< 100 °C: unrestricted	
		< 150 °C: 350 h	
		< 175 °C: 25 h	
		> - 5 °C for 761245	
		> - 60 °C for 761246	

Order information

	Part No.
LWM-1 line heat detector	761290
Termination link set for sensor cables	761243
Connection link set for sensor cables	761244